

AMERICAN VETERINARY REVIEW,

SEPTEMBER, 1881.

ORIGINAL ARTICLES.

THE HORSE'S FOOT.

BY A. ZUNDEL.

(Continued from page 187.)

Treatment.—From the preceding remarks, it is evident that in feet affected with canker, the keratogenous apparatus of the foot has undergone no essential alteration in its structure, that its thickness and density have only increased by consequence of the infiltration and organization in its net work of the plastic products of inflammation. And, again, the secreting function of this apparatus, far from being arrested, is on the contrary more active; but the products it gives instead of being concrescible, remain diffuent; hence the impossibility for the hoof to be restored in the regions where this alteration of secretion exists and remains. These important facts, says M. Bouley, must take the lead in the chapter of the therapeutics of canker, because they teach the practitioner that the object to effect, in the treatment of this disease, is not to radically destroy the diseased tissues, as has been too often done and recommended, but to return to them their physical and physiological properties by the application on their surface, of modifying agents which influence

the nutritive and secreting functions of their tissues without interfering with their structure. To reach this point, the most varied pharmaceutical agents have been recommended, the most successful being those which at the same time had parasiticide properties. We however, find it difficult to give the preference to any of them; and we have now more faith in the *modus faciendi*, to the skill of the operator, to the continued use of dressings properly applied, than to such or such agent; all those which have been recommended if methodically applied, can cure canker, and it will be wise to employ them alternatively; when one fails at first it is prudent to try another; canker is a disease so often rebellious to treatment, especially if confined to the lacunæ of the frog, that too many remedies cannot be used.

The first indication is to remove the excess of the horn of the wall, whose length we have said, is often very great; and to prepare a convenient shoe for the dressings. This shoe necessarily varies, as canker is exclusively localized to the plantar surface of the foot or extends to the prodophyllous laminae. Generally an ordinary shoe is used, more or less covered (wide) and so hollowed as to allow the free application of plates by which the dressing is kept in place. When the condition of the disease requires the removal of large pieces of horn, a truncated slipper is used, proportioned in cutting to the extent of the parts of the wall upon which it is to be applied. There are circumstances even when shoes cannot be used, so much does the disease extend under the wall. It is then necessary to use a shoe without nails, or boots, secured to the coronet by means of straps. In all cases the rule is to take care that the dressings remain fixed in the most exact manner, and that through them, a methodic, steady, but not excessive pressure is constantly applied over the diseased parts.

The first step of the operations passed, the next consists in the removal with proper instruments, of all the loose portions of the horn, either at the plantar surface, at the quarter, or at the heels. One must avoid, in this operation, the excision of soft parts; but the important indication is to follow the disease wherever it exists, and to leave no part of the horn which may have been detached by morbid exudations. Better cut the healthy structures,

and have them bleed, than to neglect to completely expose a diseased part. This done, the horn is to be thinned as much as possible, upon the circumference of the diseased spots, in order to give a suppleness which would ease the swelling of the uncovered parts.

Upon the exposure of the disease where it exists, the fici existing on the surface and edges of the velvety tissues are to be removed with the scissors or sharp sage knife; at the same time the parts of horn which may have remained are to be cut off, avoiding, however, the healthy tissue beneath, which still retains its normal character.

When the canker is very extensive, so that the wall is loose on each quarter, or on all its circumference, it is of advantage to proceed in the required operations at different times.

This done, the shoe can be put on; after which the diseased surface and surrounding horn are to be covered with a thick layer of the medicamentous preparation. If this is in form of a paste, as is often the case, it is spread over with a spatula. If in powder, it is thrown over it carefully. If liquid, balls of oakum are soaked with it and placed on, the whole being then kept in place by pads and plates. The important point is that the dressing should be so applied as to be easily changed, that an exact, regular and sufficiently strong pressure be kept on. No better means can be used for this than the divided plates already referred to.

In canker the dressing must be renewed every day, and even twice daily at the beginning of the treatment. This is an essential condition of success, whatever may be the therapeutical agent employed; and this is not a simple difficulty in practice where the patient is not always of easy access. Moreover, this dressing is somewhat complicated, and can only be skillfully made by the veterinarian himself.

It often occurs that upon the removal of the first dressing, (the second day) one finds the tissues already covered by a layer of hardened horn, adherent to their surfaces. One must then, with the finger, a spatula, or a dry pad of oakum, rub it off where it is found loose and movable and if necessary, renew the applica-

tion of the dressing. The same must be done at the other dressings, carefully watching if this new horn thus formed by the influence of the medication, is not separable from the parts underneath by the different morbid secretions of the disease. One must then carefully scrape off all that is not adherent, and thin the edges, and the projections of all the horn which retains its soundness; the caseous substance being also removed; the same compressive dressing to be put on again.

The modification in the horny secretion, and the formation of a layer of hardened and adherent horn, are especially great in the parts where podophyllous and velvety tissues exist; but are very slow, and surrounded with difficulties in the median and lateral lacunæ of the frog. After ten days of treatment, one may have brought about a normal secretion on the whole circumference of the sole, on the inferior face of the *os pedis*, and on the prominent parts of the pyramidal body. But in the lacunæ the alteration remains isolated, and resists treatment; and it often happens that, if neglected it may again spread and the disease reach its former extent. It is then the case, when the disease is limited to the lacunæ, to add to the ingredient already in use and which is kept applied upon the restored parts, another stronger and more active agent, sometimes simple absorbent; here again it becomes difficult for us to advise the practitioner, the number of recommended drugs being very large and the result depending less on their nature than in the intelligent and persisting manner with which it is applied. When one thinks to use caustics it must be done with care, to limit their action only to the thickness of the keratogenous tissue, and not to carry it to the destruction of the bone, or still worse, of the plantar aponeurosis.

Let us glance at the drugs which have proved most successful in the treatment of canker: First we have the different pyrogenous preparations, especially wood tar, recommended by Bracy, Clark, Reynal and Bouley, and which give astonishing results. Gas tar, oil of cade, petroleum and soot have also been used, but with less advantage; creosote and phenic acid have often shown themselves very useful, by penetrating easier to the base of the villousities where the parasite resides and thus acting more regularly;

phenic acid proved very useful with Krause, Gerlach and Zundel.

After these the best recommended preparations are the salts of iron; Hertwig seems to be well pleased with the powder of the sulphate, and Arnold recommends the pyrolignite of the same metal; Megnin advises specially the perchloride, which, like phenic acid, is rather a powerful astringent than a true caustic. The preparations of copper have also had their time, and especially the acetates, such as the ægyptiacum ointment (Girard, Schaack, Rainard and Rey); the baths of sulphate of copper were employed by Verrier Jr., of Rouen; a solution of sulphate of copper and of zinc in water or vinegar were recommended by Delaval and Haubner; Solleysel employed the preparations of copper, but added to them arsenic and other drugs; Eichbaum preferred the powder of chloride of lime, and Rauch ordinary lime, while Aubry employed a mixture of lime and caustic potash.

Caustics were well recommended by other practitioners, but their prescriptions seem to be contrary to the rule we have laid down in the beginning. However, one must not forget that the tissues of the foot, especially when diseased, offer an extraordinary resistance to the action of caustics; they are, so to speak, impenetrable, and the irritation they produce remains superficial, while where those tissues are healthy such agents produce a deep cauterization. Again, this resisting force of the indurated tissues against the action of caustics is limited, and it is possible that one, two or three applications may apparently remain inefficacious, where a fourth or a fifth will give rise to extensive cauterization. The result is explained by the repeated irritating influence of the caustic agent, which, by gradually increasing the vascularity of the parts it touches, increases also the means of their absorption and imbibition. These facts must also be present to the practitioner's mind, and it is by them that he will be guided in their use, rendering them at will, simply modifying, cathartic, or deep caustics.

Nitric acid was used by Percivall and Delorme, the latter considering it the best means in use. Sulphuric acid has also been employed, seldom alone, but mixed with agents likely to re-

duce its effects and render its applications more convenient. Collignon and Renault recommend its reduction with alcohol; Mercier mixed it with four parts of oil of turpentine; Prange with equal parts of tar, and Plass made a paste of it with burnt alum. This last remedy, very simple in its formula, was applied without any dressing; it has proved most excellent in a great number of cases, but may give rise to too deep cauterization (Bouley, Mandel).

Arsenious acid was much used by old horsemen, combined with ægyptiacum, turpentine and other ingredients. Hoffmann prefers the arsenite of soda in solution; he sold his secret to the Austrian government for a high price. Butter of antimony was recommended by Huzard, Sr., Prevost, and especially Huzard; chloride of zinc was preferred at the Lyons school.

The treatment of canker by actual cauterization was indicated by Solleysel, but soon abandoned by him. In applying the cauterium upon the uncovered tissues of the hoof we encounter the chance of producing a very severe inflammation, which spreads by degrees and gives rise to extensive slough of the hoof, as a consequence of the serous exudation which takes place; the action of the cauterium may then become either too mild or too vigorous. Still, it has been recommended by Prevost, of Geneva. Hurtrel D'Arboval, who also employed it, used it in the following manner: the parts being covered with a mixture of gunpowder and sulphur, a red-hot iron was applied to the spot, the powder burning suddenly and the sulphur slowly. If the combustion was too slow, he increased it and kept it up by the same means. When the operation is concluded the parts are transformed into a black scar, which can be easily removed by scraping, and the application and cauterization may be repeated, and so on until it appears that a sufficient amount of heat has penetrated the tissues to destroy the material by which canker could be regenerated. The cauterization being once properly effected, then in order to sustain irritation, the foot is covered with Burgundy pitch, or resin, melted and warm, which is allowed to cool off on the foot, when a dressing of oakum and the shoe are put on. The dressing is changed as soon as suppuration shows itself and renewed with the

same ingredients in the same manner until the wound becomes healthy and granulating.

It is only for the sake of the record that we refer to the exclusively surgical treatment, based upon the erroneous idea that the fici of canker are abnormal products, deeply implanted in the tissues beneath, and where it was advised to look for the imaginary roots of these fici at their extreme limits. In this treatment, not only the diseased horn was removed, but the entire sole, the plantar cushion and often the plantar aponeurosis was excised. This practice, advised by Lafosse junior, was also recommended in the veterinary schools by Chabert in France, and Dieterichs in Germany. It prevailed for a long time, though experience showed that the wound resulting from such an operation was of very slow recovery, that the frog especially could not be regenerated, that there remained a central ulcer, and that it gave rise to such a malformation of the foot that the animal remained lame for a long time, sometimes for life. Notwithstanding these objections, observed by Jeaune, Girard and Eichbaum, this treatment is still followed by a few who prefer it to the simple operations of Solleysel, which consists in the division of the loose pieces of horn and the excision of the fungoid projections.

We have thus far only spoken of the local, without referring to the internal or constitutional treatment of canker, recommended by those who look upon the disease as constitutional. Without believing that it can have any real curative effect, we, however, admit its usefulness, when the disease is of old standing, and that the animal has suffered much by it. Ferruginous preparations are specially advisable, and we prefer the carbonates that are used by Delwart to the sulphates recommended by Prevost, Delaval and Hertwig, and it is well to unite them with bitters and tonic powders. Arsenious acid is prescribed internally by Delaval, Feuillette, Niederberger, Obich; and other alteratives, such as mercury, which we would not advise. Nor can we understand how any benefit is to be derived from diuretics and purgatives, and especially from the use of external emunctories, such as setons.

(To be continued.)

RESUMED STUDY IN ANTHRAX.

CONSIDERED FROM THE POINT OF VIEW OF SANITARY POLICE.

BY PROF. DESSART.

(Continued from page 193.)

II. SPECIAL SYMPTOMATOLOGY.

Taking advantage of the most recent scientific discoveries, we will consider anthrax under two types only, viz: *without* and *with external manifestations (localizations)*, both being collected under the common name of *anthrax disease*.

ANTHRAX IN EQUINES.

(a). *Anthrax without external fever. (Anthrax fever).—* Anthrax fever runs a rapid course, not exceeding generally three or four days. The horse afflicted with it becomes suddenly sick, and the access of the disease is marked by a well developed febrile condition. Ordinarily the subject is comatose. There is great prostration, and the animal has a staggering gait. Respiration is accelerated, and the pulse, first full, rapidly becomes small and irregular. The motions of the heart are strong and bounding. The temperature soon diminishes, while in the febrile stage it had risen more or less. The coat is dull; the hairs of the mane are easily pulled out. The visible mucous membranes are infiltrated, assume a dark yellow or red brick color, and are often covered with petechiæ. The urine is usually brownish, and frequently bloody. There is no appetite, but occasionally great thirst, but in most cases the animal appears quite indifferent to either liquid or solid food. At times there are colics, varying in severity and duration, accompanied by very offensive dark stools, the evacuation of which is often accompanied or preceded by bloody discharges, manifesting the existence of enterorrhagy.

Sometimes the comatose stage is interrupted by an access of violent excitation, at which time the animal assumes an aggressive attitude.

The morbid process continuing, all the symptoms increase, and the animal soon dies, death usually taking place either upon the

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same or the day following that of the appearance of the disease.

Such is the most common aspect of anthrax, unaccompanied by external localization, amongst equines.

In some cases the disease advances much more rapidly to its termination. The animal exhibiting no appearance of disturbance in health, suddenly stops his work; he shakes his head; presents a frightened appearance; trembles, instinctively spreads his legs to avoid falling, then drops down, and, with a few convulsive movements, dies.

In such circumstances, when the disease kills in less than an hour, in a few minutes, indeed, the disease is more commonly known as the *apoplectic form of anthrax*.

(b). *Anthrax with external manifestations*, (Carbuncular Anthrax).*—The disease presents a symptomatic ensemble very analogous to that of ordinary anthrax fever, but its evolution, which is less rapid, is accompanied with external alterations. Indeed, during the course of the disease, ordinarily as early as during the febrile period, tumors of various sizes, and generally well defined, appear, principally upon the declivous parts, rich in sub-cutaneous laminous tissue. These tumors, ordinarily small at first, are at the beginning, warm and very painful. They rapidly increase and then lose their sensibility, sometimes assuming enormous sizes. If incised a flow of black, ichorous, uncoagulable blood takes place, mixed with serosity and gelatine-form material. Later, they become painless and lose their heat. Some are emphysematous and crepitating, but never so at the outset of the disease, as the crepitation and the emphysema are but the result of the formation of gasses in the putrifying sub-cutaneous tissues. When the death of the animal is soon to take place one may sometimes observe that the altered tissues and the skin covering them are eliminated by a process of sloughing analagous to that of gangrene. One sees also, in numerous cases, that the hairs which cover the carbuncular tumors are moistened with a kind of red dew from the transudation of the blood, deeply altered, through the tegumentary covering.

* Charbon Essentiel.

It sometimes happens that the *localization* takes place principally in the mouth, or upon the tongue, which becomes blackish, extensively tumefied, and covered with phlyctens. It also happens that the localization takes place more especially in the horny box of the foot and is followed by its slough. In the first case, the disease receives generally the name of *Stomanthrax* or *Glossanthrax**; in the second it is said that there is *anthrax in the foot*.

The duration of this form of anthrax is not as short as that of anthrax fever. In most cases death takes place about the third or fourth day.

B. IN BOVINES.

(a). *Anthrax without external localization.* (Anthrax Typhus.)

—Under this form,† the morbid process manifests itself in a way somewhat similar to that of anthrax fever of equines. Like it, sometimes, it crushes, so to speak, or kills animals in a few hours, at others being much less rapid in its action, requiring three or four days at most before it ends fatally. In most cases animals die inside of twelve hours.

When the disease assumes the apoplectic form it shows no prodromic symptoms. Animals are suddenly struck with it, most ordinarily while at pasture. They are seen stopping suddenly, staggering for a few seconds, trying to step forward and dropping down heavily, to rise no more. They struggle for a few minutes, sometimes an hour or two and die. Some at the time of the fall utter a kind of a frightened howl, a short and loud bellowing, but the majority remain mute.

When the disease is less rapid in its development, it shows a series of symptoms easy to observe. These are generally as follows: hebetude, alternating with moments of excitation; lowering of the normal temperature of the body, preceded by a short elevation; horripilations, sometimes subcutaneous emphysema at the shoulders, neck, back, &c.; visible mucous membranes with petechia of a dark red or yellowish hue and infiltrated; pulse at first strong and accelerated; beating of the heart tumultuous;

* Very rare in Belgium, especially in equines.

† Anthrax fever of some authors. First variety of anthrax typhus of Chabert.

considerable prostration; quite often paraplegia; anorexia and adipsia; meteorism; abdominal pains; diarrhetic passages, often bloody; in most cases hematuria; agalaxia; dispnoea, with or without cough; head shaking, sometimes bent towards the shoulder; ordinary sterno-abdominal decubitus or with the hind legs spread and extended backwards, or in a complete lateral position; death without convulsions.

(b). *Anthrax with external localization.* (Symptomatic Anthrax).—Under this form it is distinguished from the other, first by its duration, always less short, then by the appearance of diversiform carbuncular tumors upon different parts of the body, groin, neck, axillæ, back, thorax, abdomen, croup, thigh and fetlocks. These tumors, also called carbuncular efflorescences, present the same characters as those of carbuncular anthrax of solipeds. They undergo the same changes.

(c). ANTHRAX IN OVINES.

(a). *Anthrax without external localization.* (Splenic apoplexy*).

Sang de rate is common in France and Germany. It is rare in Belgium. It is a deadly sickness, which exists mostly in the enzootic form in some pastures, where it kills extensively, unless the flocks are rapidly removed. Its duration is short, and according to Mr. Reynal it is always fatal.

It shows itself suddenly without any appreciable warning. The affected sheep stops eating; loses its ordinary liveliness; and goes about head down, and in a state of great prostration. It becomes unable to follow the flock; the sheep stands back. The respiration and pulse are accelerated, the heart loses its normal action, and seems to be bounding in the chest. The peripheric temperature is sensibly lower, soon also is the internal. If micturition takes place naturally, which is very rare during the course of the disease, or under the influence of compulsion hematuria[†] is clearly manifested. The visible mucous membranes are

*Sang de Rate.

†M. Reynal (loc. cit.) gives a very easy way to make the patient micturate. It only requires to take hold of him and pinch his nose with the fingers for a few seconds. The animal urinates at once while struggling.

injected, especially those of the eye and mouth. They soon assume a dirty, dark red, slightly yellowish color, and on the lower lips are covered with "purplish spots." According to Reynal these are characteristic of the disease.

This first manifestation has scarcely appeared when other symptoms show themselves; general trembling, inability to stand up, abundant discharge of tears; difficulty of sight, escape of blood through the nose, anus and vulva; sometimes cold œdema of the neck, chest, groin and inferior jaw. Lastly, more or less severe convulsions take place, and carry off the patient in two or three hours, seldom sooner, rarely later.

(b). *Anthrax with external localization.* (Eruptive Anthrax).—This form is almost entirely exceptional to ovines. Its symptomatology is limited to the development and character of the carbuncular tumors, and is the same as that of the symptomatic anthrax of cattle. Like it, anthrax of sheep with external localization is less prompt generally in its development.

(To be continued).

FREAK OF NATURE.

By A. H. BAKER, V. S.

Having run across a very singular freak of nature, a few days ago, I thought I would describe it to the readers of the REVIEW. The subject is a horse, buckskin in color, rising six years old, fifteen hands and three inches high. The peculiarity lies in the generative organs, having somewhat the appearances of an hermaphrodite, but the developments of the parts is unusual even in such cases. The vulva of the female organ is natural in outline, but the lips are grown together, leaving an opening at the bottom large enough to allow the male organ to pass out, the lower part of the labia majora forming the sheath of the penis, although it encloses only a small portion of it, leaving the glans always exposed and protruding at the point occupied by the clitoris of the female. The glans is perfect in every respect, but small, it having the urethral fossa, cul de sac and fungus-like protuberance of

the male. The mammary glands are entirely wanting, but two small teats are found in their natural position. The animal has the general appearance and *finesse* of the mare, but has never shown any indications of being in heat; it has the organs as far as micturation is concerned, of the male, but no testicles are visible, and never shows any inclinations of the stallion when in the company of mares in heat, but minds his own business like a gelding. The urine is passed in a small, steady stream, as with the male, but he takes the position of the female. He is perfect in every other way, and can trot in 40 without training. The glans penis that is exposed is about the size of the same organ of a gelding.

GOURME.

By T. V. ROGERS, D.V.S.

There is, at this writing, in Gloucester Co., N. Y., an enzootic disease which I suspect to be *variola equina*. I have not had an opportunity to see authenticated cases of the disease, and cannot prevail on any one to allow inoculation to bovines.

I give a short summary of some cases I have met with in my own practice, and of two that I did not treat. I have seen more than fifty cases of the disease, and there are comparatively few farms free from it, in a mild or severe form.

Case 1.—A driving horse in Woodbury was attacked by swelled legs, followed by formation of ulcers on the fetlocks, and destruction of the superficial layers of the skin around the bulbs of the heels; purulent infiltration into the connective tissue; inflammation of the superficial lymphatics; formation of pus in the sub-maxillary glands—fever. Good recovery.

Case 2.—A horse in Haddonfield, N. J. Two ulcers on the outside of the near hind leg, one on the fetlock joint, the other below it; the surrounding tissue somewhat indurated, the granulations florid, the pus laudable; at other points between the fetlock and hock were foci of purulent discharge, and on other parts of the body, including the face, were marks of similar

ulcers which had recently healed; no swelling of sub-maxillary glands; no constitutional disturbance; appetite and spirits good. Recovery prompt and complete.

Case 3.—Two horses at Berkley, N. J. In these cases the outbreak was confined to the heels of the hind legs. The attack came on in a night. Considerable heat around the coronets, slight lameness. Quick recovery.

Case 4.—A horse in Mullica Hill, N. J., under treatment by a Philadelphia veterinarian for purpura hæmorrhagica. The owner said: "the hind legs and face had been badly swollen, the legs 'breakin' below the fetlocks;" when the swelling subsided, at the time of my visit, the sores on the heel looked healthy, the legs were somewhat swollen, and there was considerable swelling in the region of the face and nose. The appetite was good, the sub-maxillary glands slightly swollen, *the temperature normal*; none of the discoloration of the visible mucous membranes so characteristic of purpura.

Case 5.—A stable of horses in Mantua, N. J. In the horses I examined, the disease was confined to the nose, and was in the stage of scab. Every animal was attacked, one having ulcers on the fetlock.

Case 6.—All the horses in the stables of the Mullica Hill Stage Co. There also the disease was confined to the nose. In some cases there was a little purulent discharge from the nostrils, in others none. In one white-faced horse, the eruption was decidedly pustular, but where the skin is pigmented the pustulation cannot be affirmed.

DIFFERENTIAL DIAGNOSIS.—*From purpura*, by the absence of petechia and hæmorrhage, the non-elevation of temperature, the percentage of recovery.

From farcy.—By the character of the pus, the fact that the outbreak is confined, in most cases, to parts of the body where the lymphatics are sparse, the readiness with which healing takes place, and the appearance of the hair, which is glossy and lies the right way. The ulcers are distinguishable from those of pemphigus, (which in some cases, they greatly resemble), in that they heal readily without treatment. The only cases where

constitutional disturbance is marked are those where purulent infiltrations give rise to a pyæmic condition, with embolic abscesses, and if death occurs in any case, it will be from this secondary pyæmia.

Mortality.—I have not heard of any deaths from the disease.

Spread of the disease.—At this time of the year, the farmers of Salem and Gloucester Counties take their truck to Philadelphia by road. The horses are watered from a common bucket and have their noses sponged out with a common sponge, at Mullica Hill, Mantua, Woodbury and Westville.

If any gentleman on your staff wishes to experiment with the virus, I shall be glad to forward some.

EDITORIAL.

ENGLISH VETERINARY CONGRESS.

We are indebted to the kindness of Prof. Duncan for the essays read at the Veterinary Congress held in London in July.

Presided over by Mr. George Fleming, the world-known veterinarian, the profession was largely represented by members from the old and new world, Prof. Duncan no doubt representing Canada, and we hope that Dr. C. P. Lyman was there also to represent the United States.

The object of the Congress, as stated in the paper read by Dr. G. A. Bauham is, "to promote and advance veterinary science and maintain the honor and interests of the veterinary profession."

The establishment of such an association certainly marks an era in the history of British veterinary science, and judging from the large attendance, and the enthusiasm and earnestness of those present, it is not too much to expect that these meetings will, in the future, not only unite and strengthen the members of the profession, but that they will also serve as an incentive to original investigation and research in all the branches of veterinary science. These meetings of earnest and progressive veterinarians can but be productive of much good to the general public, as well as to the profession.

We sincerely trust that the example set by our British friends will serve to infuse new life and vigor into the meetings of the United States Veterinary Medical Association, and let us hope to be able to return the compliment of the Congress, by mailing copies of the essays that may be read and discussed in September. The papers presented at the recent Congress are well worthy of a separate consideration, but our space will not permit us now to more than mention the subjects. They are: On Soundness of Horses; Suggestions as a Basis for Discussion on the Subject, by J. J. Meyrick. The Influence of Disease of the lower Animals on the Health of Man, by Prof. Wm. Robertson. Suggestions for Effective Legislation for the Prevention of Contagious Diseases in Animals, by Ben. H. Russell. Cruelty to Animals from a Veterinary point of View, by Wm. Hunting. Scheme for forming a British National Veterinary Association, by G. A. Bauham.

Each of these papers was thoroughly discussed by those present. We trust that future meetings of the Congress will fulfil the promise of this.

UNITED STATES VETERINARY ASSOCIATION.

Veterinary Congresses have recently been held in Italy and in England. They were largely attended, and numerous and important subjects were discussed, no doubt to the advantage of all.

In the United States we have what might be considered by some as a Congress of Veterinarians from this large country. It is the *United States Veterinary Medical Association*, whose annual meeting is to take place on the third Tuesday of this month. Leaving aside the slight difference which may exist between a congress and the true organization of the association, what an enormous difference can still be observed between the doings of this above named association and those of the two meetings held in Italy and in England! There a large amount of material; of good work gone through; papers on important subjects relating to the profession in its different points of view; records discussed. On the other, on the contrary, what? * * *

This association has now been in existence for eighteen years, and what work of any advantage to the profession can it boast of? By a recently published register of the veterinarians practicing in the United States, the profession is said to count about seven or eight hundred members in its ranks, and yet the United States Veterinary Medical Association counts only sixty-eight members.

There are no doubt, some reasons for this condition of things. Why is it that so few members belong to it—are the conditions of admission so rigid that any worthy practitioner cannot be admitted? Why is it that the meetings are so deficient in professional discussions, and so lamentably remarkable for the absence of papers of acknowledged importance? Why is it that generally one, or perhaps two papers, and these probably only single records of cases, are presented, and why is it that after traveling many hundreds of miles, members are obliged to separate after a few hours and return to their homes without satisfaction, or the acquisition of any important addition to their previous stores of knowledge?

This is a sad state of things, and one which should suggest on the part of the officers of the association, a series of reflections which should result in some measures of *reform*, which are conceded by all to be imperatively necessary.

If the association needs an increase of members—and we believe that every respectable veterinarian ought to be identified with it—the officers should endeavor to urge those who are timid about application for candidature, to send in their names without hesitation.

If the members are neglectful and backward in the preparation of scientific papers, and other means of securing the advancement of their common professional interests, it is the duty of the officers of the association to take proper measures and make the necessary provisions for the success of their meetings. To be the President of such an association is no small honor, as we esteem it, but to be deserving of the honor requires an energetical supervision of the work of the association, quite as much as it includes the pleasant duty of presiding at the stated meetings in Boston or New York.

These remarks are presented with but one object—we may be as guilty of neglect as any other member of the association, and we feel that we are all more or less to blame. We have been giving the subject a great deal of thought, and believe that some important reforms ought to be made in our organization at once.

Let us at our next meeting, undertake this work of reform; let us try to discuss the subject as it ought to be discussed, and by proper action let us lay the foundation for not only an association, but for a congress, worthy of this great country and of the immense interests our profession is called to protect.

FRENCH SANITARY LAW.

This law, which has been so long expected, has at last passed and been signed by the executive head of the French government. It is very elaborate and may be usefully studied by all who are interested in sanitary police. We publish to-day the first chapter, designating the contagious diseases likely to come under the spirit of the law, and the sanitary measures applicable to them.

Among the sixteen articles found in this chapter, the 9th and 12th will prove interesting; the first as ordering the inoculation of bovines in the localities which are declared infected, and the second as forbidding the treatment of animals affected with contagious diseases by unqualified practitioners.

STATE VETERINARIAN IN ILLINOIS.

In the July number of the REVIEW, we published the law proposed by the legislature of Illinois for the Suppression and Prevention of the spread of Pleuro-pneumonia among Cattle, Section 1 of which provides for the appointment of a State Veterinarian.

One of our exchanges brings us the news of the appointment to the position of one of the assistant editors of the REVIEW, N.

H. Paaren, M.D., who has for years been prominent in the State of Illinois by his veterinary works. Dr. Paaren, we have no doubt, will do justice to the duties imposed by his new position, and confer credit on the profession for which he has labored for years.

NOTICE.

The nineteenth regular and anniversary meeting of the United States Veterinary Medical Association will be held in New York city, on Tuesday, the 20th of September, in the lecture room of the American Veterinary College, 141 W. 54th street.

The Comitia Minora meets at 10 A.M. The regular meeting opens at 11 A.M.

C. B. MICHENER, D.V.S., *Secretary.*

SANITARY LEGISLATION.

CHAPTER I.

FRENCH LAW UPON THE SANITARY POLICE FOR ANIMALS—CONTAGIOUS DISEASES OF ANIMALS AND SANITARY MEASURES WHICH ARE APPLICABLE TO THEM.

SEC. 1. The diseases of animals reputed contagious, and which give occasion to the application of the provisions of the present law are :

Bovine pest (Typhus) in all species of ruminants.

Contagious pleuro-pneumonia of bovines.

Small-pox and *scabies* in ovine and caprine species.

Foot and mouth disease in bovines, ovines, caprines and swine.

Glanders and farcy, dourine in equine and asinine species.

Rabies and Anthrax in all species.

§ 2. A decree of the President of the Republic, rendered on the report of the Minister of Agriculture, after advice of the consulting committee of epizootics, may add to the nomenclature of the diseases reputed contagious in each of the species

of animals above mentioned, all other contagious diseases, named or not, which might assume a dangerous character.

The provisions of the present law may be extended, by a decree rendered in the same form, to animals of other species than those above designated.

§ 3. All owners, or persons having, in whatever title it may be, the care or guard of an animal affected or suspected of being affected with a contagious disease, in the cases provided by sections 1 or 3, is required to make immediate declaration of the facts to the Mayor of the town where the animal is.

This same declaration is required from all veterinarians called upon to treat such diseases.

The affected or suspected animal shall be immediately, and before the administrative authority has responded to the notice, isolated and separated as much as possible from all other animals liable to contract the same disease.

It is forbidden to remove the animal before the official veterinarian has visited him. The same interdiction is applicable to the burying, unless the Mayor, in urgent cases, has given a special permission.

§ 4. The Mayor shall, as soon as advised, assure himself of the execution of the prescriptions contained in the above section and provide for them if necessary.

As soon as such declaration has been made, or, in default of such declaration, as soon as he knows of the disease, the Mayor shall proceed without delay to direct an inspection of the diseased or suspected animal by the official veterinarian.

The veterinarian shall verify, and if necessary, order the complete execution of the provisions of Section 3, and immediately direct the application of the necessary measures of disinfection. He shall submit his report without delay.

§ 5. Upon the recognition of the disease, the Prefect of the department shall decide upon such measures as the peculiar case may require. If necessary he shall issue a decree of infection. This may demand in the localities implicated, the following measures :

1st.—Isolation, sequestration, visits of inspection, census and marks of animals and herds in the infected localities.

2d.—The interdiction of these localities.

3d.—The temporary interdiction or the regulation of fairs and markets or of the transport and traveling of animals.

4th.—The disinfection of stables, barns, vehicles or other means of transport, the disinfection or even destruction of the objects used by diseased animals, or those which had been soiled by them, and generally of any objects likely to become a means of contagion.

A regulation of public administration shall determine which of these measures shall be applicable, according to the nature of the diseases.

§ 6. When a decree of the Prefect has established the existence of typhus in a commune, the affected animals, or those of the bovine species which had been contaminated, even when they do not yet present any apparent sign of the disease, shall be destroyed by order, according to the decision of the official veterinarian, and after estimation.

It is forbidden to arrest the execution of said measures upon such diseased animals, except in the cases and under the conditions which would be especially established by the Minister of Agriculture, upon the advice of the consulting committee of the epizootics.

§ 7. In the case provided for in the preceding section, diseased animals shall be destroyed on the spot, except in the case where the transport of the cadaver to the place of burying shall be declared by the veterinarian more dangerous than that of the living animal; the transport, in view of killing, may be authorized by the Mayor, according to the advice of the official veterinarian, for the animals which were contaminated.

Animals of the ovine and caprine species which have been exposed to contagion are to be isolated and submitted to sanitary measures, to be determined by the regulation of public administration charged with the execution of the law.

§ 8. In cases of confirmed glanders, and in those of farcy and anthrax, if the disease is judged incurable by the official veterinarian, the animals must be killed by order of the Mayor. Where there is doubt respecting the nature or incurable character of the

disease, between the official and the attending veterinary surgeon, the Prefect shall name a third veterinarian, whose report shall be acted upon.

§ 9. In the case of contagious pleuro-pneumonia, the Prefect shall order the killing, in the delay of two days, of animals recognized as affected with the disease by the official veterinarian, and the inoculation of bovine animals, in the localities declared infected with the disease.

The Minister of Agriculture shall have the right to order the killing of bovine animals having been in the stable or belonging to the same herd, or that have been in contact with animals affected with contagious pleuro-pneumonia.

§ 10. Rabies when confirmed in animals of whatever species, subjects the animal to immediate death; the killing cannot be postponed upon any pretext.

Dogs and cats suspected of hydrophobia must be immediately destroyed. The owner of the suspected animal is required, even in the absence of administrative agents, to attend to the execution of this prescription.

§ 11. In epizootics of small-pox, the Prefect may, by decree issued under advice of the consulting committee of epizootics, order the vaccination of infected flocks.

Vaccination cannot be performed without authorization from the Prefect.

§ The practice of veterinary medicine, in contagious diseases of animals, is forbidden to any one not holding a diploma as veterinary surgeon.

Upon the application of the general council, the Government may adjourn, by decree, the execution of this measure, for a period of six years from the promulgation of the present law.

§ 13. The sale or offer for sale of animals affected with contagious disease is forbidden. The owner can only dispose of them under conditions established by the regulations of public administration provided for in Section 5.

This regulation shall fix for each species of animal, or of disease, the time during which the interdiction to sell shall be applied to animals which have been exposed to contagion.

§ 14. The meat of animals dead by contagious diseases, whatever they may be, or of those killed as affected with typhus, glanders, farcy, anthrax or hydrophobia, cannot be used for consumption.

Cadavers, or remains of animals dead by typhus or anthrax, or having been killed as affected with those diseases, shall be buried after the skins have been slashed, unless sent to a regularly authorized rendering establishment.

The conditions under which the transport, burying or destruction of cadavers will be executed, shall be decided by the regulation of public administration provided by Section 5.

§ 15. The meat of animals killed as having been in contact with animals affected with typhus, may be delivered for consumption, but their skins and remains cannot be used until they have been disinfected.

§ 16. All contractors for transport by land or water who shall have transported animals, shall, at all times, disinfect, according to the prescribed conditions of the regulation of public administration, the vehicles used for that purpose.

(To be continued.)

THE CATTLE-PLAGUE.

INTERVIEW WITH A MEMBER OF THE NATIONAL COMMISSION WHICH LATELY MET AT SARATOGA—OUTLINE OF THE WORK WHICH THE COMMISSION HAS BEFORE IT—THE SOURCE AND SPREAD OF PLEURO-PNEUMONIA—NEXT MEETING OF THE COMMISSION IN CHICAGO.*

J. H. Sanders, Esq., of the national commission to make an investigation into and report upon the subject of pleuro-pneumonia among cattle in this country, together with the best means to be employed to secure the removal of the British embargo on our cattle traffic, returned home from the Saratoga meeting of the commission on Sunday. A reporter for *The Times* had a talk with him, yesterday afternoon, upon the work of the body so far.

The commission was appointed by Secretary Windom under

* *Chicago Daily Times.*

the sundry civil appropriations bill passed by the last Congress, and consists of Prof. James Law, of Cornell University; Dr. Thayer, of West Newton, Mass., and J. H. Sanders, of Chicago. Prof. Law has had a large experience with the disease, and is considered eminently fitted for the responsible position conferred on him. Dr. Thayer is also practically conversant with the disease, having had charge of the work of stamping it out in Massachusetts. Mr. Sanders is editor of *The National Live Stock Journal*, a recognized authority on cattle and horses, and is a man of much reading and experience. The commission met at Saratoga last week, and organized by the choice of Prof. Law as president, and Mr. Sanders as secretary. Several days were spent in laying out the work to be done. A summary of its conclusions is herewith presented:

The primary object of the commission is to suggest some means by which the British government may be assured that none of the cattle imported from this country have the contagion, which assurance will warrant it in removing the present restrictions on the trade. Under the law, at present, all cattle received from the United States must be slaughtered at the point of debarkation within ten days after their arrival, regardless of their condition or the state of the market. Under this restriction, it is estimated that cattle are worth from \$15 to \$25 per head less than they would be if they could be taken inland and kept till their condition and the state of the market were favorable. The annual loss thus entailed upon American breeders and shippers is estimated at from \$4,000,000 to \$5,000,000.

Many of the members of Congress thought that a strict inspection at the port of export would remedy the evil; but the committee was of the opinion that any inspection, however rigid, would be useless as far as giving the British government an assurance of freedom from the disease is concerned. So long as there is any pleuro-pneumonia in the country and so long as an unrestricted traffic is permitted between the infected and non-infected districts, an inspection would go for nothing, owing to the insidious nature of the disease. It fastens upon an animal and incubates from thirty to ninety days before making its appearance,

and an animal which, to all appearance is perfectly healthy when put on board of a vessel, may show the disease on the way, or after debarkation.

It has always been claimed, and the commission holds, that the disease does not exist west of the Alleghanies. The British inspectors claim, however, that they have been able to trace the disease to herds of cattle from the west. Either they are mistaken or the commission is, and one of the pieces of work which the latter has set before itself is to determine definitely the exact truth of the matter. To this end it has decided to make a searching investigation among the herds of the west, paying particular attention to the swill, dairy, and distillery cattle, among which it most probably exists, if at all. Until that is done, no man can speak with authority sufficient to justify Great Britain in removing the embargo on western cattle.

The commission has devised a system of registration and numbering by which, if the English authorities will lend their co-operation, it will be possible to trace every animal landed upon British soil to the American farm on which it was fattened. Whether or not this co-operation can be secured will be known in a few days.

The commission has ordered the preparation of a circular to be sent to the governors of states, secretaries of agricultural societies, and the general public, setting forth the danger of the traffic in eastern dairy calves. It is among these and these only that the disease is believed to generate. They are cooped up and crowded together, and fed on slops, and the disease is known to exist all along the coast from New York to Washington, and is gradually being carried by contagion into the interior. The west has thus far escaped it, because the only cattle heretofore brought from the east were of the finer breeds, which were more carefully kept and were not affected. Last year, however, a large trade in these dairy-farm calves sprung up, no less than 40,000 of them having been sent to various western points through Chicago alone. It is the danger of contamination from this source to which the commission proposes to call attention.

It will also make a searching investigation into the sanitary

condition of the vessels in which the cattle are transported to England, to determine whether they may have anything to do with originating the disease.

It will likewise look into the condition of the cattle along the principal lines of transportation between Chicago and the seaboard, including Boston and Portland, with a view to determining whether, if healthy when shipped, they are liable to contract the disease at points where they are taken off for rest or feed. When all this is done and the commission has reliable statistics before it, it will endeavor to formulate legislation to cover the emergency.

The next meeting will be held at the Sherman House in this city on the 29th inst. The entire work of the body, it is thought, will not be completed before the close of the year. The business office of the commission will be the office of Secretary Sanders, Honore Building, at the corner of Adams and Dearborn streets, where all communications should be addressed.

EXTRACTS FROM FOREIGN JOURNALS.

SECOND NATIONAL ITALIAN VETERINARY CONGRESS, AT MILAN.

Reports and discussions upon the following questions will take place this month at the Second Italian Veterinary Congress which will be held at Milan:

1st. Report of the commission appointed at the Congress of Bologne, in 1879, by Prof. Lanzillotti-Buonsanti, upon a project of organization of the Sanitary Veterinary Service in Italy.

2d. Report of the commission by Prof. Guzzoni upon the necessity of establishing a uniform guide for veterinarians of the anatomo-pathological alterations which at the slaughter-houses shall exclude meat from the market.

3d. Report presented by Dr. Ciro Griffini, upon a project of an association of protection and mutual assistance for all Italian veterinarians.

4th. Report upon a project of uniform regulation for all Italian veterinary societies.

5th. On the best, quickest, surest, least cruel mode of killing domestic animals.

6th. Upon the danger and inconvenience of the modern systems of transport of animals by railway or steamship.

7th. What ought to be the duration of the sequestration in the various contagious diseases.

8th. Hygienic and sanitary measure to adopt, to arrest the spreading of contagious pleuro-pneumonia at its first appearance.

9th. Upon the hygienic and sanitary measures to use against anthrax, and what will be the duration of their prophylactic effects.

10th. What are the diagnostic means of recognizing the suspected glands and chronic nasal catarrh, from true glanders in horses. Give sanitary measures accordingly.

11th. Upon the necessity of adopting preventive measures against foot and mouth disease.

—12th. By what means and regulation of sanitary medicine can Italy be protected from the introduction of trichinosis through American pork; and what means are to be used if the introduction exists.—*Clinica Veterinaria*.

A PROLIFIC COW.

Mr. G. Borrini reports in the *Clinica Veterinaria*, a case of a cow which in thirty-two months from the time of her first delivery gave birth to eleven calves.

In 1879 she had two, which lived and were afterwards killed for market.

In 1880, her second pregnancy, she had five, four living and a dead one. Of the former, two only were killed for market, the others dying a few days after birth.

In 1881, she gave birth to four more, three females and one male. This last soon died. The three females are yet alive, and in good prospect of reaching full growth.

During the three deliveries, the cow did not suffer the slightest disturbance.—*Clinica Veterinaria*.

FIBROUS POLYPUS OF THE RIGHT VESICULA SEMINALIS IN THE HORSE.

BY DR. RAFFAÈLE CIUCCI.

An interesting specimen was obtained from a subject brought to the clinic of the veterinary school of Milan, for diseases of the urinary apparatus.

It consisted of the bladder, the two vesiculæ seminalis, and the urethra.

By examination it was found that the vesiculæ seminalis, and especially the right, were much enlarged; that the intra-pelvic portion of the urethra was comparatively much enlarged also; that the peri-urethral connective tissue was very œdematous and that a purulent exudation existed, principally in the portion in connection with the rectum. Feeling through the walls of the pelvic urethra, revealed the presence of a large bosselated mass, existing in the interior of the canal. This consisted of a neoplastic polypus, arising from the superior portion of the right vesicula, passing through the ejaculatory canal into the urethra to its ischiatic portion. It measured at the base, four centimeters. It seemed to be constituted of three portions, and was about fifty centimeters in length.—*Clinica Veterinaria*.

-TRICHINA AT HAMBURG.

According to official statistics to date of March, 1881, the following are the results obtained by the examination of pork:

	1880.		1879.		1878.	
	Exam- ined.	Con- demned.	Exam- ined.	Con- demned.	Exam- ined.	Con- demned.
American hams.	78,597	836	102,662	1,290	49,513	382
European hams.	39,846	—	28,710	2	17,113	3
“ hogs.	9,913	—	160,204	1	10,838	—

The proportion of trichinosed pieces is then for American products, 1.05% in 1880; 1.16% and 0.79% in the two other years; for European products, on the contrary, it is 0 for 1880, 6 for 100,000 in 1879, and for 10,000 in 1878.—*Revue d'Hygiène*.

**PORK POISONING ; DESCRIPTION OF A NEW INFECTIVE ORGANISM
IN HAMS.**

Serious accidents having taken place at Welbeck Abbey, an inquest was made by Dr. Ballard, and revealed the fact that "the seventy-two persons affected had all eaten hams ; thirty-six hours after, they had fever, choleric diarrhoea, muscular pains, vomitings and great prostration. Several of the sick ones died. Sent to London, the meat was examined by Mr. Klein. It contained no trichina, but in the *raw* or *cooked* meat, the muscular fibres were covered with bacilli and spores, in great quantity. Inoculated to healthy pigs, these microscopic organisms produced death in them.

At the autopsy of one man who had died it was found that the glomerules of Malpighi, the arteriols of various tissues, were closed, obliterated by a large number of bacteria. Was this anthrax, or the disease improperly called typhoid fever in the pig ? What is the origin of these parasites ?

And again, at the same time, Dr. Seaton observed at Nottingham, a similar affection, produced under similar conditions. Here also, hams were the cause of it, and Mr. Klein found in them the same bacteria, of exactly the same nature, with those he had found in the hams from Welbeck.—*Revue d'Hygiene*.

HORSE-POX.

BY M. J. PHILIPPE.

The 3d of November, 1876, the author was called to visit a mare slightly sick ; he found on the buccal mucous membrane and upon the tongue, pustules of *horse-pox*. Collecting the liquid from these pustules, several children and a cow were vaccinated with it. Six days later, the use of a twitch which had been used upon the mare produced *horse-pox* in another horse, and gave beautiful pustules. The vaccination was successful in most of the cases.

When preserved in glass tubes, *horse-pox* virus rapidly loses

its activity for the vaccination of children, and as it may be used a long time for the inoculation of cows, Mr. Philippe proposes to collect the virus whenever he can find it, and inoculate cows, thus making the veterinarian the true keeper of vaccine matter for man.—*Revue d'Hygiene*.

HOSPITAL RECORDS.

STOMACHAL INDIGESTION IN THE HORSE, WITH ANTE-MORTEM RUPTURE. VOLVULUS OF THE SMALL INTESTINES AND OF THE INFERIOR HALF OF THE CÆCUM, LACERATION OF THE DIAPHRAGM AND HERNIA OF THE STRANGULATED INTESTINE IN THE THORAX.

By M. CARNET.

This is the report of a horse, which suffering with pulmonary emphysema, had been submitted to the following diet—no hay whatever, but instead, its equivalent of straw and barley in equal proportions. Administration of 0.50 centig. of arsenious acid. Instead of this he received no straw, but barley alone. On the 22d of December he was taken with violent colics. He was dull; pawed the ground, but showed no desire to lie down; abdomen distended, loins flexible; conjunctiva slightly redder than usual; mouth dry, saliva very viscous; breath acid; respiration somewhat labored, the inspiration shorter and more frequent; pulse about normal. A drench of camphor, ether and asafetide was prescribed, with rectal injections; walking exercise.

Three hours later, exaggeration of the symptoms; the animal threw himself down, and tried to lie on his back; got up; remained quiet, his head hanging down, and laid down again. Conjunctiva red; pulse small, weak and quick; respiration short and irregular; tympanitis; extremities and ears cold. New drench; friction of oil of turpentine on the extremities.

In the evening, no improvement; animal worse; complete immobility; face anxious; conjunctiva pale; pulse imperceptible; respiration short and quick; skin cold all over. He died during the evening without a struggle.

At the post-mortem, made eleven hours after death, the stom-

ach was found torn at the great curvature, eighteen centimeters in length, and ante-mortem; omentum covered with remains of food from the stomach. The abdomen contained also a few of them, with a large quantity of liquids. The point of the cœcum had passed through the diaphragm, and was in the thorax. A volvulus, involving two folds of the jejunum and the anterior half of the cœcum, was exposed. The diaphragmatic laceration extended upwards and to the right, leaving on the right the pillars of the muscles, vena cava, œsophagus and the mass of the liver. In the thorax the lungs were contracted, black and gorged with blood. The pleural cavity contained a certain quantity of blood.

The peculiarities of this case consist in the presence of such serious lesions together, while they are ordinarily met separately, the absence of vomiting, though the lesions of the stomach were ante-mortem; the absence of the peculiar motion &c., position of the head, as met in cases of volvulus.—*La Presse Veterinaire*.

POST RECTAL ABSCESS.

By R. H. HARRISON, D.V.S., House Surgeon American Veterinary College Hospital.

This case was a fine dapple-gray gelding, seven years old, 15½ hands high. He had been shipped from Maine by rail, and when delivered in New York a large swelling over the posterior gluteal region, on the left side, was noticed. Thinking that the animal had been bruised on the journey, the owner applied cold water to the swelling; but this did not have the desired effect, the swelling increasing and giving rise to difficulty in the act of defæcation.

When admitted, the swelling was so large as to greatly disfigure the parts; it was diffused, and extended from the anterior third of the gluteal region posteriorly, and from the median line to a level with the tuberosity of the ischium. On manipulation externally, little pain was manifest, and fluctuation could not be distinctly felt. In making a rectal examination a large abscess was readily made out, fluctuation being very distinct over the ischiatic ligament. There was also a fistulous tract opening in the rectum, forward, communicating with the abscess, and admit-

ting a small catheter to the depth of several inches. Its opening was situated on a line with the anterior part of the small ischiatic notch. In every other respect the animal was in perfect health and condition. A doubtful prognosis was given, on account of the liability of the abscess extending more anteriorly into the pelvis.

Treatment.—The most prominent part of the swelling, over the ischial tuberosity, was explored with an aspirator trochar, and pus being found, an incision about an inch long was made, and a pint and a half of dark colored, thin, foetid pus was evacuated by pressure, externally and through the rectum. The cavity of the abscess was thoroughly washed out with carbolic solution injected through the incision, and escaping through the rectum. A seton was then introduced through the incision and fistulous tract and rectum, and secured externally. The following day the discharge of pus was very abundant and laudable in character. The injection of carbolic solution was continued, and the cavity of the abscess was frequently emptied by pressure several times a day. For three weeks the same treatment was observed, together with half an hour's walking exercise daily. The seton was then removed, and the discharge gradually decreased until only five drachms were evacuated during the day. For a month no special improvement had taken place, the discharge remaining about the same and continuing healthy. The patient also seemed to suffer this drain on his system with no evil results. Solutions of chloride of zinc from four grains to an ounce, tincture aloes, diluted Vilate's solution were injected, and the discharge was decreased to two drachms daily. At this period the discharge remained the same for over two weeks, when there remained only a narrow but long fistulous tract. As a final resort, a solution of from six grains to an ounce of nitrate of silver was injected for two consecutive days. The effect was almost immediate, the discharge stopping altogether, and the incision, which had been growing smaller, healed.

The patient was discharged and has since done very well. Close observation is necessary to detect the cicatrix which followed the incision.

REPORTS OF CASES

A MELANOTIC TUMOR ON THE END OF THE SPERMATIC CORD.
WEIGHT THREE POUNDS.

BY N. RECKTENWAHL.

PITTSBURGH, June 10, 1881.

Editor American Veterinary Review :

DEAR SIR:—I desire to relate an operation which I performed on the 9th of June, on a bay gelding twelve years old, the property of William Renny, of Birmingham, if you think it of sufficient interest to insert in the REVIEW.

I was called to see the horse, and on examination I discovered a tumor on the spermatic cord, and I advised the owner of the animal that an operation would be the only and best treatment I could propose. The owner, however, did not like to risk the operation, but it grew larger, and as he saw no other means of getting rid of it I was requested to operate. I then cast the horse and secured him well, laying him on his back. I made an incision over the tumor, ten inches long, and dissected it out all around up to the spermatic cord and artery. Having done this, I put a castrating clamp, ten inches long, under the tumor and on the cord, as if I was about to castrate him in that way. I then cut the tumor off, and left the clamp on for one day. I cut a vein during dissection which I twisted until it stopped bleeding. The wound bled considerably during the operation, but this I did not consider anything serious. I then allowed the horse to get up, and rubbed him off, and the owner led him home by walking. The vein I twisted opened again and bled freely, and so I applied Monsel's salt, (?) which stopped the bleeding, and I gave a wash composed of:

Carbolic acid 2 dr.,
Glycerine 2 oz.,
Aqua q s 1 pt.

to be applied with a spray syringe three times a day. On the 17th I took the clamp off and the horse was eating and drinking well. The horse did well and in four weeks the wound was healed.

FEBRIS PUERPERALIS PARALYTICA.

BY THE SAME.

I have another case at your service. On the 28th of July, I was called to see a sick cow in the country, three miles from Pittsburgh. On my arrival there I was told that the cow had calved and was doing well, and cleaned well, and everything was all right that day, but she became sick on the morning of the 28th, and I found all the symptoms of febris puerperalis paralytica.

Symptoms: The cow was down and not able to get up. Her head was in her side, and her eyes cloudy and watery, pulse feeble, 75; skin cold. The cow was restless and tried to get up, but could not do so. The bowels being very constipated, I prescribed:

No. 1.	Magnes. Sulph.	1 lb.,
	Potas. Nitrat	2 oz.,
	Tart. Stibi	2 dr.,

to be dissolved in two quarts of water, and to be given within two hours; two hours after this was given I prescribed:

R	Fl. Ex. Valerian	4 oz.,
No. 2.	Aqua Ammon.	1 "
	Spts. Nit. Eth.	4 "
	Fl. Ex. Hyosciamus,	1 "

Mix and give one-fourth part every two hours, in one pint of linseed oil.

On the 29th I found her very low, as she had tumbled out of her stable. She was put back again into the stable but had become so weak as to be unable to lift her head. I ordered the same as No. 2, without the linseed oil; I saw her the same night at 10 o'clock, when I gave her:

R	Soda Sulphas.	1 lb.,
	Pd. Nux Vomica	1 oz.,
	Tart. Emetic	4 dr.,
	Olei Lini	4 oz.,
	Olei Croton	15 drops,
	Aqua	1 pt.,

Mix, and give one-fourth every three hours. She could

swallow only a little at a time, but care was taken, and the medicine was given according to directions. I backracked her and injected her, per rectum with

Decoction Cammomile	2 qt.,
Olei Lini	4 dr.,
Laudanum	1 oz.,

Injected into the uterus a lotion compounded of

Acid Carbolic	2 dr.,
Olei Lini	2 oz.,
Decoction Cammomile	2 pts.,

I then left her, with no more hopes of her recovery and I did not go to see her on the 30th, when, to my surprise, I was called on the 31st, and was told that she had stood up and had a free passage from her bowels and had urinated a large amount of water. When I saw her she took a drink of gruel and picked a little hay, and kept on improving, and is now doing well. July 31st I had to see another cow with the same fever, but she could swallow well. I gave the same treatment and she got up the next day and is also doing well.

CEREBRO SPINAL MENINGITIS.

By BENJ. McINNES, JR., M.R.C.V.S.

In the past week my services have been required in four cases which I will endeavor to describe.

1. A mule, the property of a gentleman residing about three miles from the city. When I arrived the animal was dead. The owner related to me the following symptoms: The mule was attacked suddenly with tremors, profuse perspiration, opening and closing mouth, perfect inability to swallow. He died in six hours after commencement of the attack. The animal was perfectly healthy up to that time. I diagnosed poison from eating wild oranges, but the farmer informed me that his mules could not get wild oranges, as they were never turned out.

2. Three days after the first case the same farmer came down saying he had another mule attacked the same way. Being out

of the city, I could not be found, and he returned home to find the animal dead. The duration of this case was about twelve hours.

(Residing on an island, about five miles from Charleston, I usually go over to the city about 5 o'clock in the afternoon, returning the following morning at about 9 o'clock, leaving my father to attend to any cases that may occur during my absence.)—Last evening, my father was requested to see a case with this history :

3. The patient was a mare. She was in our shoeing shop yesterday morning, and seemed quite well, but during the afternoon, (having been driven steadily through the day,) she appeared to become weak in her hind quarters, and before her owner could get her home, she gave out entirely, and upon arriving at the stable, fell down without the power to regain her feet. She perspired profusely. On my arrival in the city this morning, I went to see her immediately. I found her down, on her right side. She still perspired freely ; the surface of the body was hot ; the pulse strong and quick ; she moved her head and her legs with much strength and frequency ; the tongue hung from the partly-opened mouth, from apparent inability to control the parts ; the power of deglutition seemed entirely lost—my father stating that on administering a stimulating ball, she was unable to swallow it, and it remained in the œsophagus. She died in about a half-hour after my seeing her, and in from fifteen to seventeen hours from the commencement of the attack.

4. Pony, driven to baker's cart, came on Saturday last, owner saying that pony was not well, and had gone through his work very lazily that morning. I administered a stimulating ball, and sent him home. When my father called to see him that night he had considerable difficulty in swallowing liquids, and could not be made to swallow a bolus given him. On Sunday I found him quiet, but lying down a great deal at full length—temperature 101. I had ice put on his head, and prescribed tinc. aconite and belladonna, in small doses on the tongue, every hour. He died about forty-eight hours after the commencement of the attack.

After seeing this case I was inclined to attribute the trouble to

the heat of the weather. But on seeing the case this morning, and from the history of the mules (1 and 2,) which had not been worked in from four to six days before the attack, and as in none of the cases was there the slightest *swelling of the throat*, I have come to the conclusion to diagnose this disease as "cerebro-spinal-meningitis." I thought just now that I would look up Williams on the subject, but find nothing but the description of the disease by Dr. C. P. Lyman, as it appeared in New York, in 1871. He does not speak of any affection of the throat.

CORRESPONDENCE.

SPINAL MENINGITIS IN SPRINGFIELD, MASS.

SPRINGFIELD, MASS., July 23d, 1881.

Editor American Veterinary Review:

DEAR SIR:—I wish to give you a few notes concerning the disease which has been somewhat rife here this season; not that the notes are of any value or interest, but simply because I said I would do so. Spinal Meningitis (?)

It appears to be a febrile disease characterized by paralysis, partial or total, of the posterior extremities. It is epidemic in its nature, and from what I have seen and can ascertain, it for the most part affects mares; and as the urino-genital organs are usually affected, perhaps the question might be asked, is the condition of oestrus in any way predisposing to the disease?

The premonitory symptoms are febrile, temperature 102° to 103° usually, respiration hurried, pulse quick and small, slight running at nose, etc. Usually in two or three days' time there is a stiff, straddling gait in the hinder limbs, followed by loss of power, it may be, so that the animal is unable to stand. If the premonitory symptoms are neglected, not unfrequently the animal will fall down in harness, in which case the result is often unfavorable, whereas if taken in time, recovery would seem to be the rule. The appetite is singularly good, and beyond the facts above stated there is but little disturbance. In one case only was there a violent *natural* perspiration, and as this was a bad case, and made a

very rapid recovery, the indication is perhaps of some value.

The duration of the disease is variable; six or seven weeks, or even more, may elapse before the affected parts fully recover their functions, but the crisis appears to occur about the fourth or fifth day after the manifestation of the stiff gait.

The treatment adopted is simple: fever treated *secundum artem*. Camphor liniment with ammonia and turpentine to the loins is beneficial—mustard seemed to cause too much irritation. In the case above referred to, which recovered rapidly, the irritative symptoms were so violent, with rigors and fearful perspiration, that being unable to stay with the animal, I injected hypodermically atropine one grain, and morphia three grains, with exceedingly good results. After the crisis, iodide of potassium alternated with nux vomica exerts a useful influence in aiding recovery of functions in hinder extremities.

Post mortem.—Opportunities wanting, therefore details meagre. Intense congestion in hind quarters and pelvic organs, with inflammation of genital organs; spinal cord probably implicated about the lumbo-sacral plexus. Opportunity wanting for careful examination.

These are the chief items that occur to me, but I shall be glad to add anything I may have forgotten.

I. VAUGHAN.

VETERINARY MATTERS IN AGRICULTURAL AND DAILY PAPERS.

EDITOR AMERICAN VETERINARY REVIEW:

We read almost every day in some of the agricultural or daily papers of veterinarians who have been made investigators of certain diseases, and particularly when such diseases have assumed an enzoötic or epizootic form, while it is seldom or never that these investigators give the results of their labors where it would seem evidently to be due, *i.e.*, in *veterinary journals*.

Why this is so, or rather, why it should be so, is a question we may well ask.

Perhaps it will be answered by saying that the diseases which they have been called upon to "investigate" prove to be but or-

dinary disorders, that may be seen in the daily life of any average veterinarian, and therefore not worth reporting to a veterinary periodical.

But do we not make a mistake right here, in more than one particular? Should not the contents of a veterinary journal be diversified? Must we not, to have a readable, interesting and valuable paper, present to our readers other than the writings of the most eminent scientists among us? I do not mean that our pages should be filled with inferior matter. I do think, however, that after reading an article by Pasteur, Colin and many others, we should find reports of interesting cases—reports that embody the history, treatment and the results of the special treatment adopted in each particular instance. Again, are those diseases and their medication, which we call common, thoroughly understood by us? Is there not in an enzoötic of influenza, even, valuable and useful matter to be learned in relation to existing conditions and surroundings, that may give us new light and serve to aid us in determining questions of etiology, infection, contagion, &c.? If such a disease exists, it is the duty of the veterinarian who may be called to recognize it, to ascertain not only *what* the disease is, but *why* it exists; why it should be confined to a certain territory; what are the local causes or defects that are producing the disease.

Besides all this, a veterinary journal, above all others, should be made acquainted with the history of existing diseases, whether "common" or otherwise.

Let each member of the profession, and especially those who practice in agricultural districts, report the outbreaks of Texas fever, swine-plague, pleuro-pneumonia, glanders, etc., that may have come under their observation during the present summer, and thus allow the readers of the *Review* to judge as to the wisdom of such a course.

A. E.

BIBLIOGRAPHY.

ELEMENTS OF CHEMICAL AND MICROSCOPICAL ANALYSIS IN THE
DIAGNOSIS OF THE DISEASES OF DOMESTIC ANIMALS.

This little work, which covers 266 pages, the fruit of the pens of Dr. O. Siedamgrotzky and V. Hofmeister, has been translated into French by Prof. J. M. Wehenkel, of the Belgium School, and Mr. C. Siegen, Veterinary Surgeon at Luxembourg.

If it was ever proper to say of a book that it filled a much-felt want, this is one of the best occasions for the remark, and for this reason the two translators deserve much credit for having made the work accessible to those who are unacquainted with German but who understand French. We hope that some English writer may be found who will give our English-speaking people an opportunity to appreciate the value of the work.

Following the introductory remarks of the translator and of the authors, the book opens by treating of sundry generalities in the use of the microscope, and with the alterations which may be commonly met with, caused by the presence of foreign bodies in microscopical preparations. The third part comprises a few short but appropriate generalities upon chemical analysis.

The following seven chapters are devoted to the physiological and pathological aspects presented by the different secretions, including the blood, milk, mucus, urine, fœces, pus, and the microscopical examination of the skin.

The work concludes with a few pages on food, water, meats and milk.

The chapter on urine is very carefully written, and in the seventy-six pages it occupies, forms an excellent treatise upon this important secretion, so commonly overlooked by veterinarians in making their diagnosis of disease.

Some fifty wood engravings furnish illustrations of the elements of chemical and micrographical analyses, with which every veterinarian ought to be familiar.

LA PRESSE VETERINAIRE.

This is a new monthly, independent, veterinary journal, published in Paris, under the direction and with the assistance of several veterinarians. Each number contains about forty pages of interesting articles, relating to pathology, jurisprudence, professional subjects, and reports of societies.

It is, we believe, the sixth veterinary journal published in France. We tender the *Presse Veterinaire* our sincere wishes for its success.

NEWS AND SUNDRIES.

ANTHRAX IN LOUISIANA.—*The Planter's Journal*, of New Orleans, speaks of the prevalence of a form of anthrax affecting horses and mules in the vicinity of Pointe-a-la-Hache. Swellings or tumors appear on different parts of the animals, which, if not early controlled, rapidly increase and cause death. The loss so far is about thirty-five head.

A GREAT NUMBER of horses at La Salle, Ill., are affected with a disease which, from newspaper reports, is presumably influenza. But few deaths are reported.

THE NUMBER of sheep in Nebraska has in six years increased from thirty thousand to nearly two hundred thousand.

THE "SIBERIAN PLAGUE" has broken out in some parts of Eastern Russia, and is said to be attacking the human as well as the bovine species.

The Medical and Surgical Reporter, of Aug. 6th, contains the following:

- **TRICHINOSIS IN AMERICAN HAMS.**—A strong opposition to the use of American hams is becoming manifest in Europe. At the meeting of the German Public Health Association, in Berlin, in June, the Director of the Royal Veterinary School, Prof. Roloff, gave a very unfavorable opinion against them, saying, that from

one to four per cent. are found trichinous. The Hungarian Council of Public Health have officially recommended that the importation of American swine flesh of all kinds into the kingdom be forbidden. Of three hundred American hams examined in one house at Hamburg, eight were found trichinous.

THE REMARKABLE YOUNG MARE, Maud S., has lowered her record this season from 2:10 $\frac{1}{4}$ to 2:10 $\frac{1}{4}$. Intelligent training and heredity have done much to increase the speed of the American trotting horse.

THE *Turf, Field and Farm*, of Aug. 12th, advises as a safeguard against rabies, "free exercise in the open air, clean bedding, renewed frequently, ready access to cool pure water, and a plain, simple diet, with but a moderate quantity of meat during the hottest Summer season." It wisely adds: "If a dog is not worth this attention, 'shoot him on the spot,'" and it might also suggest "avoid the biting of another mad dog."

A NEW HORSE.—M. Poliakoff, the distinguished Russian naturalist, has examined a horse presented by Colonel Prewalsky to the St. Petersburg Academy, and decided it to be a new species, which he has named *Equus Prejwalskii*. It appears that the new representative of the family of undivided-hoofed mammals is in some respects intermediate between the domestic horse and the wild ass, but it differs from the assinine genus in having four callosities, one on each leg. In the form of skull, absence of dorsal stripe, and other particulars, it resembles the domestic horse. This newly-recorded animal is indigenous to the plains and deserts of Central Asia, and has not hitherto fallen under the dominion of man.

APPOINTMENT OF AN ENTOMOLOGIST.—Prof. C. V. Riley has been reappointed to the position he formerly occupied as Entomologist of the U. S. Department of Agriculture, and his selection will be applauded by all who know his eminent fitness for the post.—*The American Farmer*.

SOME idea of the immense flocks of sheep owned by "squatters," in New Zealand, may be inferred by the following, mentioned in a recent *Government Gazette*, published at Canterbury, N.Z.:

Robt. Campbell has 386,000 head; Dalzell & Co., 208,000; Geo. Henry Moore, 90,000; Clifford & Wild, 80,000; Mr. Ketchum, 80,000; Mr. McLean, 50,000; Wm. Robinson, 68,000; Sir Dillon Bell, 82,000.—*Farmers' Review*.

THE SOCIETY FOR THE PROMOTION OF AGRICULTURAL SCIENCE will hold its annual meeting at Cincinnati, on August 16th, when a number of able papers are to be read by the members, most of whom are eminent chemists.—*The American Farmer*.

THE *National Live Stock Journal* mentions an English mare that at 21 years of age gave birth to three foals. The first of these was born dead; last two are living. Two years previous to this the same mare gave birth to twins.

THE following is the number of cattle exported from the Island of Jersey to England and the United States during the six months ending June 30, 1881:

<i>Shippers.</i>	<i>Cows.</i>	<i>Bulls.</i>
Eugene J. Arnold.....	486	20
Francis Le Brocq.....	325	6
Sundry shippers.....	21	2
Total.....	832	38

IN JUNE the famous old mare Goldsmith Maid dropped her third foal, a bay filly, by Gen. Washington, son of Lady Thorne. The other two foals were colts, and the first, dropped in 1879, was killed in trying to jump a fence, Aug. 3, 1880. Goldsmith Maid is now 24 years old.—*National Live Stock Journal*.

THE Cattle Commission was permanently organized, with Prof. James Law, of Cornell University, Chairman, and J. H. Sanders, of the *Stock Journal*, Chicago, Secretary, at Saratoga, Aug. 12. All communications referring to the business or work of the Commission must be sent to the Secretary at Chicago. They decided to make a searching investigation at the great Western centres of the cattle trade to ascertain whether those points are free from infection.

A DISEASE, the nature of which is unknown to stock-owners,

is reported as existing extensively among cattle of Charleston and Lincoln, Ill. The eyesight is affected and total blindness results.

HEREFORD CATTLE were first brought into this country in 1815 by Henry Clay. They were kept on his farm in Lexington, Ky.

PYÆMIA IN CATTLE.—In connection with the reported disease among cattle in Nova Scotia, it has been learned from official sources that for the past twenty years the disease reported prevalent has been purely local in its effects. It is infectious without being contagious. The difficulty has been in the superficial burials, and carcasses having been dragged instead of being carried have caused a spread of the disease. The best preventive is absolute cremation. The malady lasts about twenty-four hours, the symptoms being lameness in the hind quarters, and afterward a general swelling. The diagnosis of the disease has established beyond question that it is merely a case of blood poisoning.

THE *Massachusetts Ploughman* states that Dr. Thayer has been ordered to Nova Scotia, to investigate the reported disease existing among cattle in that region. It is generally belived to be a blood disease, and confined to a certain area in the county of Pictou.

THE NEW YORK CITY PAPERS report a fatal disease as attacking horses in Brooklyn. It is, in all probability, nothing more than influenza.

LARGE COLT.—Mr. Moreland, of Covington, Ky., has a four-year-old horse colt that measures 21 hands in height, and weighs 1,900½ pounds. He is said to be well built and very active.

A HORSE COMMITS SUICIDE.—An old horse belonging to a Mr. Saunders at Fishkill Landing, came out of his owner's barn a few days since, and stood for a few minutes looking out upon the water. He then went back, and in a few moments came out again, went deliberately to the water, waded into the cove that is inclosed by the Hudson River Railroad track, swam through the culvert under the railroad and out into the channel of the river. A man working on the New England Railroad pile-driver saw the manœuvres

of the horse, and putting out in a small boat, brought him back. On reaching the shore the horse persistently refused to go on dry land. He lay down in the water, floundered about and apparently tried his best to drown himself by keeping his head under water. This he finally accomplished in water not deep enough to cover his body.—*Turf, Field and Farm*.

THE SUBJECT of castrating cows is being brought prominently before the public at present, and the advantages to be derived from it are more fully understood and appreciated. E. F. Brush, through the *New York Medical Record*, earnestly urges this operation.

EXCHANGES, ETC., RECEIVED.

FOREIGN.—Veterinarian, Veterinary Journal, Clinica Veterinaria, Revue für Thierheilkunde und Thierzucht, Archives Veterinaires, Recueil de Medecine Veterinaire, Journal de Zootechnie, Revue Dosimetrique.

HOME.—American Agriculturist, Turf, Field and Farm, Prairie Farmer, National Live Stock Journal, Medical and Surgical Reporter, Medical Record, Maine Farmer.

JOURNALS.—Iowa Farmer, Ohio Farmer, Practical Farmer, Ploughman.

CORRESPONDENCE.—T. B. Rogers, C. B. Michener, E. A., B. McInnes, Jr., N. H. Paaren, A. A. Holcombe, I. B. Foote.